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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,216	02/20/2001	Lee Codel Lawson Tarbotton	NAI1P503/00.147.01	3943
28875	7590	06/16/2006	EXAMINER	
Zilka-Kotab, PC			CHAI, LONGBIT	
P.O. BOX 721120			ART UNIT	PAPER NUMBER
SAN JOSE, CA 95172-1120			2131	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/785,216	Applicant(s) TARBOTTON ET AL.	
	Examiner Longbit Chai	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-8,11-15 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,11-15 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 21 have been presented for examination. Claims 2, 3, 9, 10, 16 and 17 have been cancelled and claims 1, 8 and 15 have been amended in an amendment filed 12/21/2005. The amendment filed have been entered and made of record. Presently, pending claims are 1, 4 – 8, 11 – 15 and 18 – 21.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/21/2005 has been entered.

Response to Arguments

3. Applicant's arguments with respect to the subject matter of the instant claims have been fully considered but are not persuasive.

4. As per claim 1, Applicant argues: Arnold does not teach "virus scanning logic is responsive to a library of tests to detect different computer viruses, said library including data specifying which computer viruses can cause damage that cannot be repaired by

said virus cleaning and repair logic” (i.e. originally presented as claim 2 and now incorporated into each of the independent claims). Examiner notes Applicant's arguments have been fully considered but are not persuasive because (a) a library tests are interpreted as the virus test programs, as taught by Arnold, such as VIRSCAN, CHECKUP and etc (b) Arnold teaches “a library of tests to detect different computer viruses” (Arnold: Column 23 Line 23 – 33) (c) Arnold also teaches “data specifying which computer viruses can cause damage that cannot be repaired by said virus cleaning and repair logic” (Arnold: Column 29 Line 36 – 38 and Column 23 Line 40 – 45: Arnold also teaches using data for specific known types of virus signatures designated for repair mechanisms and besides, if VIRSCAN fails to identify any of the changes to the executables as a known virus would make, the system also attempts to capture a copy of any unknown virus after using decoy programs (Figure 3 (O) and Column 23 Line 58 – 61 – This virus is indeed one of the computer viruses that can cause damage that cannot be repaired by said virus cleaning and repair logic as recited in the claim limitation since the changes can not be identified and thereby the damage has no way to be recovered / repaired). Therefore, the Arnold reference does teach “virus scanning logic is responsive to a library of tests to detect different computer viruses, said library including data specifying which computer viruses can cause damage that cannot be repaired by said virus cleaning and repair logic” and as such applicant's arguments are respectfully traversed.

5. In addition, as per claim 1, Applicant argues: Arnold does not teach “warning generating logic can generate one or more different types of warning to a user that said

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target computer file may have suffered irreparable damage and said library includes data specifying which of said plurality of types of warning should be issued in response to a particular detected computer virus" (i.e. originally presented as claim 3 and now incorporated into each of the independent claims). Examiner notes Applicant's arguments have been fully considered but are not persuasive because (a) Arnold teaches "warning to a user that said target computer file may have suffered irreparable damage" (Column 29 Line 36 – 38, Column 23 Line 23 – 33, Column 24 Line 21 – 26 and Column 23 Line 40 – 45: Examiner notes "if VIRSCAN fails to identify any of the changes to the executables as a known virus would make", as taught by Arnold, is equivalent to that the target computer file may have suffered irreparable damage caused by the virus since the changes can not be identified and thereby the damage has no way to be recovered / repaired) (b) Arnold also teaches "said library includes data specifying which of said plurality of types of warning should be issued in response to a particular detected computer virus" (Arnold: Column 29 Line 36 – 38, Column 23 Line 23 – 33, Column 24 Line 21 – 26 and Column 23 Line 40 – 45: all different types of warning is issued depending upon different situations where signature data or copies of any unknown virus is effectively used along with the library test files, as taught by Arnold).

6. As per claim 4, Applicant argues: "Arnold only teaches [a] warning message is generated if VIRSCAN fails to find the virus". Examiner disagrees, see similar rationales as presented above, "if VIRSCAN fails to find the virus" does not mean "NO VIRUS" and it means one virus has been assumed to be active in the system since the

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changed of executables was detected (but the change may not be able to exactly identified) and thereby it is an unknown virus – that is different from no virus (Arnold: Column 24 Line 12 – 15 and Figure 3 Element F/J/K/O/G). Arnold also teaches a warning message will inform the user about the situations (Arnold: Column 23 Line 41 – 42 and Column 24 Line 13 – 14: the situation would evidently include the target computer file affected by the virus).

7. As per claim 5, Applicant argues: “Waldin does not teach notification message includes authentication data identifying said target computer file into which it was inserted”. Examiner disagrees because Waldin teaches according to the digital signature, the contents of the file are deemed by authentication module and thereby the authentication data indeed identifying said target computer file into which it was inserted (Waldin: see for example, Column 6 Line 50 – 67).

8. As per claim 6, Applicant argues: “Waldin does not teach or suggest any sort of notification message”. Examiner disagree because Arnold reference is relied upon providing a notification message associated with the virus detection actions and Waldin reference is relied upon providing a digital signature validation to authenticate either a message or a file (Waldin: Column 6 Line 57 / Line 67).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 – 4, 7 – 11, 14 – 18 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold (Patent Number: 5440723).

As per claim 1, 8 and 15, Arnold teaches a computer program product comprising a computer program operable to control a computer to apply a plurality of anti computer virus tests to a target computer file, said computer program comprising:

- (i) virus scanning logic for detecting if said target computer file is infected with a computer virus (Arnold : see for example, Column 24 Line 44 – 45);
- (ii) virus cleaning and file repair logic for cleaning said target computer file by removing a detected computer virus from said target computer file (Arnold : see for example, Column 24 Line 47 – 48) and for repairing any changes caused by said detected computer virus to said target computer file by reversing said changes (Arnold : see for example, Column 24 Line 51 – 53);
- (iii) virus identifying logic for detecting whether or not said detected computer virus is of a type that can cause changes to said target computer file that cannot be reversed

by said virus cleaning and file repair logic (Arnold : see for example, Column 24 Line 54 – 57); and

(iv) warning generating logic, responsive to said virus identifying logic detecting that said detected computer virus is of a type that can cause changes to said target computer file that cannot be reversed by said virus cleaning and file repair logic for generating a warning to a user that said target computer file may have suffered irreparable damage (Arnold : see for example, Figure 3 Element F, J & P and Column 24 Line 54 – 57).

Wherein said virus scanning logic is responsive to a library of tests to detect different computer viruses, said library including data specifying which computer viruses can cause damage that cannot be repaired by said virus cleaning and repair logic (Arnold: see for example, 23 Line 23 – 33, Column 29 Line 36 – 38, Column 23 Line 40 – 45 and Figure 3 (O) and Column 23 Line 58 – 61: (a) a library tests are interpreted as the virus test programs, as taught by Arnold, such as VIRSCAN, CHECKUP and etc (b) Arnold teaches “a library of tests to detect different computer viruses” (Arnold: Column 23 Line 23 – 33) (c) Arnold also teaches “data specifying which computer viruses can cause damage that cannot be repaired by said virus cleaning and repair logic” (Arnold: Column 29 Line 36 – 38 and Column 23 Line 40 – 45: Arnold also teaches using data for specific known types of virus signatures designated for repair mechanisms and besides, if VIRSCAN fails to identify any of the changes to the executables as a known virus would make, the system also attempts to capture a copy of any unknown virus after using decoy programs (Figure 3 (O) and Column 23 Line 58 – 61 – This virus is

indeed one of the computer viruses that can cause damage that cannot be repaired by said virus cleaning and repair logic as recited in the claim limitation since the changes can not be identified and thereby it has no way to be recovered / repaired the damages).

Wherein said warning generating logic can generate one or more different types of warning to a user that said target computer file may have suffered irreparable damage and said library includes data specifying which of said plurality of types of warning should be issued in response to a particular detected computer virus (Arnold: Column 29 Line 36 – 38, Column 23 Line 23 – 33, Column 24 Line 21 – 26 and Column 23 Line 40 – 45: (a) Arnold teaches “warning to a user that said target computer file may have suffered irreparable damage”. Examiner notes “if VIRSCAN fails to identify any of the changes to the executables as a known virus would make”, as taught by Arnold, is equivalent to that the target computer file may have suffered irreparable damage caused by the virus since the changes can not be identified and thereby the damage has no way to be recovered / repaired) (b) Arnold also teaches “said library includes data specifying which of said plurality of types of warning should be issued in response to a particular detected computer virus” (Arnold: Column 29 Line 36 – 38, Column 23 Line 23 – 33, Column 24 Line 21 – 26 and Column 23 Line 40 – 45: all different types of warning is issued depending upon different situations where signature data or copies of any unknown virus is effectively used along with the library test files, as taught by Arnold).

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As per claim 4, 11 and 18, Arnold teaches the claimed invention as described above (see claim 21, 8 and 15 respectively). Arnold further teaches warning to a user that said target computer file may have suffered irreparable damage includes an option to add a notification message into said target computer file (Arnold: Column 23 Line 41 – 42 and Column 24 Line 12 – 15 and Figure 3 Element F/J/K/O/G: “if VIRSCAN fails to find the virus” does not mean “NO VIRUS” and it means one virus has been assumed to be active in the system since the changed of executables was detected (but the change may not be able to exactly identified) and thereby it is an unknown virus – that is different from no virus (Arnold: Column 24 Line 12 – 15 and Figure 3 Element F/J/K/O/G). Arnold also teaches a warning message will inform the user about the situations (Arnold: Column 23 Line 41 – 42 and Column 24 Line 13 – 14: the situation would evidently include the target computer file affected by the virus).

As per claim 7, 14 and 21, Arnold teaches the claimed invention as described above (see claim 21, 8 and 15 respectively). Arnold further teaches upon detection of a target computer file infected with a computer virus that may have caused irreparable damage, said virus cleaning and repair logic presents a user with different options for further processing of said target file than if said target computer file were infected with a computer virus that only causes repairable damage (Arnold : see for example, Column 21 Line 25 – 27).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5 – 6, 12 – 13 and 19 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold (Patent Number: 5440723), in view of Waldin (Patent Number: 6094731).

As per claim 5, 12 and 19, Arnold teaches the claimed invention as described above (claim 4, 11 and 18 respectively). Arnold does not disclose expressly notification message includes authentication data identifying said target computer file into which it was inserted.

Waldin teaches notification message includes authentication data identifying said target computer file into which it was inserted (Waldin: see for example, Column 6 Line 65 – 67: Waldin teaches according to the digital signature, the contents of the file are deemed by authentication module and thereby the authentication data indeed identifying said target computer file into which it was inserted).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Waldin within the system of Arnold because (a) Arnold teaches immunizing a computer system by automatically detecting

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and extracting a signature from a computer virus (Arnold : see for example, Column 2 Line 34 – 42) and (b) Waldin further teaches using the authentication and digital signature techniques to handle virus infection situations (Waldin: see for example, Column 6 Line 50 – 67 and Column 7 Line 1 – 2).

As per claim 6, 13 and 20, Arnold teaches the claimed invention as described above (claim 4, 11 and 18 respectively). Arnold does not disclose expressly notification message includes an electronic signature applied by said warning generating logic.

Waldin teaches notification message includes an electronic signature applied by said warning generating logic (Waldin: see for example, Column 6 Line 50 – 56: Arnold reference is relied upon providing a notification message associated with the virus detection actions and Waldin reference is relied upon providing a digital signature validation to authenticate either a message or a file (Waldin: Column 6 Line 57 / Line 67). Same rationale applies here as above in rejecting the claim 5.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LBC

Longbit Chai
Examiner
Art Unit 2131



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